

EAST Search History

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|--|------------------------------|------------------|---------|---------------------|
| L1 | 31 | (US-20040011235-\$ or US-20070295236-\$ or US-20060060103-\$ or US-20050189241-\$ or US-20060011088-\$).did. or (US-5020437-\$ or US-6899033-\$ or US-6161482-\$ or US-5730462-\$ or US-5648637-\$ or US-5372069-\$ or US-5033385-\$ or US-4391197-\$ or US-3669020-\$ or US-5593181-\$ or US-5483896-\$ or US-6209460-\$ or US-6055909-\$ or US-6612242-\$ or US-5499582-\$ or US-4624186-\$ or US-4353301-\$ or US-5763820-\$ or US-4408534-\$ or US-5743556-\$ or US-5179778-\$ or US-5915694-\$ or US-6510798-\$ or US-4314509-\$).did. or (US-2797892-\$ or US-3264997-\$).did. | US-PGPUB; USPAT; USOCR | OR | ON | 2008/02/14 15:01 |
| L2 | 11 | l1 and (protrusion or groove or depression) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/02/14 15:02 |
| L3 | 31 | (US-20040011235-\$ or US-20070295236-\$ or US-20060060103-\$ or US-20050189241-\$ or US-20060011088-\$).did. or (US-5020437-\$ or US-6899033-\$ or US-6161482-\$ or US-5730462-\$ or US-5648637-\$ or US-5372069-\$ or US-5033385-\$ or US-4391197-\$ or US-3669020-\$ or US-5593181-\$ or US-5483896-\$ or US-6209460-\$ or US-6055909-\$ or US-6612242-\$ or US-5499582-\$ or US-4624186-\$ or US-4353301-\$ or US-5763820-\$ or US-4408534-\$ or US-5743556-\$ or US-5179778-\$ or US-5915694-\$ or US-6510798-\$ or US-4314509-\$).did. or (US-2797892-\$ or US-3264997-\$).did. | US-PGPUB; USPAT; USOCR | OR | ON | 2008/02/14 15:30 |
| S3 | 549 | (102/336,338,345,346).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2008/01/16 12:36 |
| S4 | 128 | (d22/112).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2008/01/16 12:36 |

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|-----|-------|---|------------------------------|----|-----|---------------------|
| S5 | 2 | S3 and (stack with (pellet or disk)) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/16 12:37 |
| S6 | 0 | ("2004/0011235").URPN. | USPAT | OR | ON | 2008/01/16 12:38 |
| S7 | 7 | S3 and (stack) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/16 12:40 |
| S8 | 5 | S3 and (layered) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/16 12:43 |
| S9 | 801 | flare with stack | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/16 12:43 |
| S10 | 5 | flare with stack and pyrotechnic | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/16 12:43 |
| S11 | 0 | flare with layered and pyrotechnic | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/16 12:44 |
| S12 | 35236 | ("102").CLAS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2008/01/16 12:45 |
| S13 | 456 | S12 and stack | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/16 12:46 |
| S14 | 89 | S12 and stack with (pellet or disk) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/16 12:46 |
| S15 | 13 | (US-20040011235-\$ or US-20070295236-\$ or US-20060060103-\$ or US-20050189241-\$).did. or (US-5020437-\$ or US-6899033-\$ or US-6161482-\$ or US-5730462-\$ or US-5648637-\$ or US-5372069-\$ or US-5033385-\$ or US-4391197-\$ or US-3669020-\$).did. | US-PGPUB; USPAT | OR | ON | 2008/01/16 12:50 |
| S16 | 3 | S15 and rod | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/16 12:50 |
| S17 | 2 | S3 and disk with protrusion | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/16 12:55 |
| S18 | 64 | (431/99).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2008/01/23 18:46 |

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|-----|-------|---|------------------------------|----|-----|---------------------|
| S19 | 13 | (US-20040011235-\$ or US-20070295236-\$ or US-20060060103-\$ or US-20050189241-\$).did. or (US-5020437-\$ or US-6899033-\$ or US-6161482-\$ or US-5730462-\$ or US-5648637-\$ or US-5372069-\$ or US-5033385-\$ or US-4391197-\$ or US-3669020-\$).did. | US-PGPUB; USPAT | OR | ON | 2008/01/23 18:53 |
| S20 | 549 | (102/336,338,345,346).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2008/01/23 18:53 |
| S21 | 3 | S20 and (frustum) | US-PGPUB; USPAT | OR | ON | 2008/01/23 18:53 |
| S22 | 0 | (flare with pellet) with frustum | US-PGPUB; USPAT | OR | ON | 2008/01/23 18:54 |
| S23 | 0 | (pyrotechnic with pellet) with frustum | US-PGPUB; USPAT | OR | ON | 2008/01/23 18:54 |
| S24 | 0 | (pyrotechnic with disk) with frustum | US-PGPUB; USPAT | OR | ON | 2008/01/23 18:55 |
| S25 | 1 | pyrotechnic with frustum | US-PGPUB; USPAT | OR | ON | 2008/01/23 18:55 |
| S26 | 277 | pyrotechnic with pellet | US-PGPUB; USPAT | OR | ON | 2008/01/23 18:55 |
| S27 | 21 | pyrotechnic with pellet with disk | US-PGPUB; USPAT | OR | ON | 2008/01/23 18:55 |
| S28 | 35241 | ("102").CLAS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2008/01/23 18:56 |
| S29 | 82 | S28 and (disk or pellet or plate) with (pyrotechnic or explosive or energetic) with (frustum or conical or stack) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/23 18:57 |
| S30 | 68484 | ("431").CLAS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2008/01/23 19:01 |
| S31 | 0 | S30 and (disk or pellet or plate) with (pyrotechnic or explosive or energetic) with (frustum or conical or stack) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/23 19:01 |
| S32 | 171 | (disk or pellet or plate) with (pyrotechnic or explosive or energetic) with (frustum or conical or stack) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/23 19:23 |
| S33 | 16 | ("2797892").URPN. | USPAT | OR | ON | 2008/01/23 19:31 |
| S34 | 773 | (flare or pyrotechnic or explosive or propellant or energetic) with (shape or configuration) with (disk or pellet or conical or cone) | USPAT | OR | ON | 2008/01/23 19:33 |

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|-----|-------|---|------------------------------|----|-----|---------------------|
| S35 | 12 | (flare or pyrotechnic or explosive or propellant or energetic) with (shape or configuration) with (disk or pellet or conical or cone) with (stack or layered) | USPAT | OR | ON | 2008/01/23 19:33 |
| S36 | 8 | ("3490466" "4140471" "4373902").PN. OR ("4652233").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/23 19:34 |
| S37 | 18882 | (frustum or frustrum) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/23 19:37 |
| S38 | 38 | (frustum or frustrum) with (pyrotechnic or energetic or propellant or explosive) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/23 19:38 |
| S39 | 262 | (disk or pellet) with shape with (pyrotechnic or energetic or propellant or explosive) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/23 19:41 |
| S40 | 14 | ("0846612" "1920075" "3054353" "3664133" "4876962" "5160804" "5180883" "5335599" "5712445" "5892172").PN. OR ("6209460").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/23 19:47 |
| S41 | 18 | (US-20040011235-\$ or US-20070295236-\$ or US-20060060103-\$ or US-20050189241-\$ or US-20060011088-\$).did. or (US-5020437-\$ or US-6899033-\$ or US-6161482-\$ or US-5730462-\$ or US-5648637-\$ or US-5372069-\$ or US-5033385-\$ or US-4391197-\$ or US-3669020-\$ or US-5593181-\$ or US-5483896-\$ or US-6209460-\$).did. or (US-2797892-\$).did. | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/23 19:55 |
| S42 | 6 | S41 and flare | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/23 19:55 |
| S43 | 0 | ("2004/0011235").URPN. | USPAT | OR | ON | 2008/01/23 19:58 |
| S44 | 1 | S20 and flare with stack | USPAT | OR | ON | 2008/01/23 19:59 |
| S45 | 1 | ("4,171,669").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2008/01/23 19:59 |
| S46 | 22 | S20 and flare with disk | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/23 20:00 |

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| S47 | 8 | ("5056435" "5639984" "5834680" "6190475" "6230628" "6412416" "6427599" "6675716").PN. | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/23 20:06 |
| S48 | 2 | ("5561259" "6055909").PN. | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/23 20:06 |
| S49 | 8 | ("5136950" "5343794" "5427032" "5435224" "5561260" "5866840" "6055909" "6662700").PN. | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/23 20:08 |
| S50 | 8 | ("4171669" "4860657" "5499582" "5561260" "5631441" "5661257" "6612242" "6659012").PN. | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/23 20:08 |
| S51 | 1 | ("3908550").PN. | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/23 20:09 |
| S52 | 21 | (US-20040011235-\$ or US-20070295236-\$ or US-20060060103-\$ or US-20050189241-\$ or US-20060011088-\$).did. or (US-5020437-\$ or US-6899033-\$ or US-6161482-\$ or US-5730462-\$ or US-5648637-\$ or US-5372069-\$ or US-5033385-\$ or US-4391197-\$ or US-3669020-\$ or US-5593181-\$ or US-5483896-\$ or US-6209460-\$ or US-6055909-\$ or US-6612242-\$ or US-5499582-\$).did. or (US-2797892-\$).did. | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/24 08:16 |
| S53 | 9 | S52 and flare | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/24 08:16 |
| S54 | 13 | ("2961962" "3625152" "3713636" "4324183" "4353301" "4624186" "4700628" "4860657" "5337671" "5499582" "5585594" "5817969").PN. OR ("6612242").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/24 08:18 |
| S55 | 6 | S54 and flare | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/24 08:19 |
| S56 | 35243 | ("102").CLAS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2008/01/25 16:07 |
| S57 | 94 | S56 and (disk with (propellant or energetic or flare or pyrotechnic) with (protrusion or rod or lip or connected or affixed or fixed)) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/25 16:07 |

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| S58 | 29 | ("3636881" "3700762" "4062709" "4149465" "4408534" "4572078" "4702167" "4864932" "5024159" "5024160" "5101730" "5101731").PN. OR ("5351619").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/25 16:10 |
| S59 | 74 | S56 and (stack with disk) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/25 16:17 |
| S60 | 8 | S56 and (stack with disk) with (connected or fixed or affixed or rod) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/25 16:18 |
| S61 | 0 | (pyrotechnic) with (stack with disk) with (connected or fixed or affixed or rod) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/25 16:20 |
| S62 | 0 | (energetic) with (stack with disk) with (connected or fixed or affixed or rod) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/25 16:20 |
| S63 | 2 | propellant with (stack with disk) with (connected or fixed or affixed or rod) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/25 16:20 |
| S64 | 1 | flare with (stack with disk) with (connected or fixed or affixed or rod) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/25 16:21 |
| S65 | 34300 | ("89").CLAS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2008/01/25 16:26 |
| S66 | 43 | S65 and (stack with (disk or flare or pyrotechnic or propellant or energetic)) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/25 16:27 |
| S67 | 89 | S56 and (stack with (disk or pellet)) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/25 16:30 |
| S68 | 38 | ("0552919" "1758358" "2991168" "3396661").PN. OR ("4408534").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/25 16:37 |
| S69 | 5 | ("1758358").URPN. | USPAT | OR | ON | 2008/01/25 16:39 |
| S70 | 26 | ("1758358" "20030155112" "20030155125" "20050066836" "2779278" "2921519" "3174545" "3270668" "4160412" "4184430" "4290486" "4329925" "4798244" "5005641" "5005649" "5690171" "6082450" "6494261" "6732799" "6817298" "6991044").PN. OR ("7228907").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/25 16:40 |

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| S71 | 115 | (gas near4 generant) with (stack or disk) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/25 16:42 |
| S72 | 233 | (pyrotechnic or propellant or energetic or explosive) with (screw or rod or threaded) with (disk or stack) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/25 16:49 |
| S73 | 18 | ("3204326" "3510934" "3540114" "3889348" "4261099" "4715105").PN. OR ("5179778").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/25 16:52 |
| S74 | 62 | ("2381130" "2448343" "2551596" "2813719" "2907536" "2923549" "2953377" "2998754" "3002708" "3135511" "3225655" "3410559" "3505926" "3610096" "3720167" "3808941" "3871321" "3898661" "3899975" "3932057" "4062112" "4140433" "4195571" "4205848" "4406227" "4428583" "4446793" "4607849" "4718320" "4770368" "4796536" "4852455" "4860657" "4899662" "5074216" "5179778" "5249924" "5445078" "5499582").PN. OR ("5915694").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/25 16:58 |
| S75 | 32 | (pellet or disk or rings) with stack with rod and (energetic or pyrotechnic or explosive) | US-PGPUB; USPAT | OR | ON | 2008/01/29 14:42 |
| S76 | 16 | ("3048112" "3128600" "3217651" "3218798" "3278356" "3362158" "3722421" "3811380").PN. OR ("4314509").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/29 14:50 |
| S77 | 13 | ("0997566" "3368489" "3623431" "3722420" "3812784" "3835783" "4220090").PN. OR ("4574701").URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/29 14:52 |
| S78 | 11 | flare with stack with (disk or pellet) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/29 14:53 |
| S79 | 1245 | flare with (disk or pellet) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/29 14:54 |

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|-----|------|--|------------------------------|----|----|---------------------|
| S80 | 33 | flare with (disk or pellet) with rod | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/29 14:54 |
| S81 | 1290 | disk near5 rod and (propellant or explosive or flare or energetic) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/29 14:57 |
| S82 | 31 | disk with affixed with rod and (propellant or explosive or flare or energetic) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/29 14:58 |
| S83 | 31 | (US-20040011235-\$ or US-20070295236-\$ or US-20060060103-\$ or US-20050189241-\$ or US-20060011088-\$).did. or (US-5020437-\$ or US-6899033-\$ or US-6161482-\$ or US-5730462-\$ or US-5648637-\$ or US-5372069-\$ or US-5033385-\$ or US-4391197-\$ or US-3669020-\$ or US-5593181-\$ or US-5483896-\$ or US-6209460-\$ or US-6055909-\$ or US-6612242-\$ or US-5499582-\$ or US-4624186-\$ or US-4353301-\$ or US-5763820-\$ or US-4408534-\$ or US-5743556-\$ or US-5179778-\$ or US-5915694-\$ or US-6510798-\$ or US-4314509-\$).did. or (US-2797892-\$ or US-3264997-\$).did. | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/29 14:59 |
| S84 | 10 | S83 and rod | US-PGPUB; USPAT; USOCR | OR | ON | 2008/01/29 14:59 |
| S85 | 31 | (US-20040011235-\$ or US-20070295236-\$ or US-20060060103-\$ or US-20050189241-\$ or US-20060011088-\$).did. or (US-5020437-\$ or US-6899033-\$ or US-6161482-\$ or US-5730462-\$ or US-5648637-\$ or US-5372069-\$ or US-5033385-\$ or US-4391197-\$ or US-3669020-\$ or US-5593181-\$ or US-5483896-\$ or US-6209460-\$ or US-6055909-\$ or US-6612242-\$ or US-5499582-\$ or US-4624186-\$ or US-4353301-\$ or US-5763820-\$ or US-4408534-\$ or US-5743556-\$ or US-5179778-\$ or US-5915694-\$ or US-6510798-\$ or US-4314509-\$).did. or (US-2797892-\$ or US-3264997-\$).did. | US-PGPUB; USPAT; USOCR | OR | ON | 2008/02/13 15:39 |
| S86 | 7 | S85 and (infrared or visual) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/02/13 15:40 |

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| S87 | 4 | S85 and (infrared or visual) and (thread or screw) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/02/13 16:08 |
| S88 | 549 | (102/336,338,345,346).CCLS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2008/02/13 16:17 |
| S89 | 4 | S88 and (flare with (tapered or angled or frustum)) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/02/13 16:17 |
| S90 | 35261 | ("102").CLAS. | US-PGPUB; USPAT; USOCR | OR | OFF | 2008/02/13 16:20 |
| S91 | 143 | S90 and (pellet or disk) with (tapered) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/02/13 16:20 |
| S92 | 5 | (pyrotechnic or energetic) with (pellet or disk) with (tapered) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/02/13 16:23 |
| S93 | 3 | flare with pellet with stack | US-PGPUB; USPAT; USOCR | OR | ON | 2008/02/13 16:25 |
| S94 | 3016 | pellet with surface near3 area | US-PGPUB; USPAT; USOCR | OR | ON | 2008/02/13 16:26 |
| S95 | 97 | pellet with surface near3 area and (pyrotechnic or energetic) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/02/13 16:26 |
| S96 | 1 | ("20040011235").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2008/02/13 16:28 |
| S97 | 1 | S96 and (surface with area) | US-PGPUB; USPAT; USOCR | OR | ON | 2008/02/13 16:29 |

2/ 14/ 2008 3:44:50 PM

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